EPA Disclaimer

Notice: This document has been provided as part of the U.S. Environmental Protection Agency Resource Conservation Challenge Web Academy Recycling and Solid Waste Management Educational Series. This document does not constitute EPA policy or guidance and should not be interpreted as providing regulatory interpretations. Inclusion within this document of trade names, company names, products, technologies and approaches does not constitute or imply endorsement or recommendation by EPA. Information contained within this document from non-EPA presenters has not been screened or verified. Therefore, EPA has not confirmed the accuracy or legal adequacy of any information provided by thenon-EPA presenters and used by EPA on this web site. Finally, links to non-EPA websites are provided for the convenience of the user; reference to these sites does not imply any official EPA endorsement of the opinions, ideas, data or products presented at those locations nor does it guarantee the accuracy of the information provided.



Environmental Marketing Claims

- What does it mean?
- How do I prove it?
- Is it really a good thing?

Sara Hartwell
U.S. EPA - ORCR



Environmental Claims

- Degradable (more than one kind)
- Compostable
- Recyclable
- Recycled Content



How many kinds of "degradable" are there?

- Degradable = material undergoes a significant change resulting in a loss of some properties
- ➤ Biodegradable = organic material is broken down by living organisms. Material can be degraded aerobically, with oxygen, or anaerobically, without oxygen
- Photodegradable = material undergoes a significant change as the result of exposure to light, resulting in a loss of some properties
- Oxodegradable = material undergoes a significant change as the result of exposure to oxygen, resulting in a loss of some properties



Do "biodegradable" and "compostable" mean the same thing?

- > No
- Compost is the result of bacterial decomposition, in the presence of oxygen, at a reasonable rate of decomposition (usually 90 days or less), leaving no toxic residue.
- Air, water, the right feedstock and temperature are required.
- > There are multiple composting methods, each with it's own requirements:
 - Backyard or Onsite Composting
 - Vermicomposting
 - Aerated (Turned) Windrow Composting
 - Aerated Static Pile Composting
 - In-vessel Composting
- Composting does not take place in a landfill!



What does happen in a landfill?

Most landfills are fundamentally anaerobic

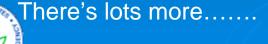
Any biodegradation that takes place in a landfill does so very slowly, and produces methane



How Do I Substantiate the Claim of Degradability or Compostability?

> Standards

- ASTM D6954 04 Standard Guide for Exposing and Testing Plastics that Degrade in the Environment by a Combination of Oxidation and Biodegradation
- ASTM D5272 08 Standard Practice for Outdoor Exposure Testing of Photodegradable Plastics
- ASTM D5338 98(2003) Standard Test Method for Determining Aerobic Biodegradation of Plastic Materials Under Controlled Composting Conditions
- ASTM D5526-94(2002) Standard Test Method for Determining Anaerobic Biodegradation of Plastic Materials Under Accelerated Landfill Conditions
- ASTM D6400-04 Standard Specification for Compostable Plastics Standard
- EN 13432 and EN 14995 Proof of compostability of plastic products
- EN 14046:2003 Evaluation of the ultimate aerobic biodegradability of packaging materials under controlled composting conditions - Method by analysis of released carbon dioxide
- ISO 15985:2004 Determination of the ultimate anaerobic biodegradation and disintegration under high-solids anaerobic-digestion conditions -- Method by analysis of released biogas



What Does Recyclable Mean?

.....can be collected, separated or otherwise recovered from the solid waste stream for reuse, or in the manufacture or assembly of another package or product, through an established recycling program.

Claims of recyclability should be qualified to the extent necessary to avoid consumer deception about any limited availability of recycling programs and collection sites.

How Do I Substantiate the Claim of Recyclability?

- Empirical Data
 - Representative sampling
 - Real-world conditions
 - Time sensitive analysis
 - Historical data
- Public and/or private databases
 - Trade association studies (e.g., AF&PA)
 - Earth 911.com
 - Biocycle
- Remember collection programs are dynamic



What Does Recycled Content Mean?

materials that have been recovered or otherwise diverted from the solid waste stream, either during the manufacturing process (pre-consumer), or after consumer use (post-consumer)



What do *Pre*- and *Post-consumer*Mean?

- Preconsumer waste is considered "recycled" if the material is diverted from the waste stream during a manufacturing process. Excluded is reutilization of materials such as rework, regrind or scrap generated in a process and capable of being reclaimed within the same process that generated it.
- Postconsumer material is generated by households or by commercial, industrial and institutional facilities in their role as end-users of the product, which can no longer be used for its intended purpose. This includes returns of material from the distribution chain.

ISO 14021:1999(E) Environmental labels and declarations – self-declared environmental claims: 7.8.1.1.



Be clear about how you are defining your terms

How Do I Substantiate the Claim of Recycled Content?

- For products or packages that are only partially made of recycled material, a recycled claim should be adequately qualified to avoid consumer deception about the amount, by weight, of recycled content in the finished product or package.
- Use Your Purchasing Records
 - What did you buy?
 - How much did you buy?
 - What did you make out of it?



How Do I Substantiate Claims of Incremental Benefit?

- Comparative claims that can be quantified include larger/smaller, more/less
 - Purchasing or manufacturing records
 - Historical data

Comparative claims that can NOT be quantified include words like "better" & "most"



Do these words imply an environmental benefit?

Is the benefit meaningful?

- Natural (arsenic and botulism are natural, but I don't want to eat or wear them)
- Greener (green is a color, not an environmental attribute)
- Eco-friendly (earth friendly, environmentally friendly maybe we shouldn't make friendly claims)

Sara Hartwell

hartwell.sara@epa.gov

703-308-7285

